

This document is intended to give a quick guide. The downside is the risk of approximation and incompleteness. For more information please consult the documents referenced in this document

Heavy vehicles

The purpose of this information sheet is to raise awareness of the need to consider heavy vehicles in urban traffic and development schemes.

After giving some elements relating to accidents and traffic, it will cover the geometry of facilities and parking to be taken into account for this type of travel. This document concerns vehicles over 3.5 tonnes and exceptional loads. It does not cover light utility vehicles.

Accidents

- In urban areas, HGVs (vehicles of more than 3.5 tonnes) are involved in 3% of accidents that cause 10% of deaths (in open country, these rates are 10% and 14% respectively). The majority concerns good vehicles but special loads (money, coal, etc.) are not negligible.
- HGV accidents in built-up areas can be sorted into several different groups by decreasing order of importance:
 - changing direction or lane (often involving a bicycle or motorised two-wheeler);
 - rear collision with a stopping vehicle by the HGV (driver taken by surprise);
 - pedestrian run over by the HGV;
 - loss of control and coming off the road.
- One of the features of accidents relating to HGV is poor rear visibility, especially for semi-trailers (rear-view mirrors), a source of several fatal accidents with cyclists and pedestrians run over by the rear wheels of the truck when turning or reversing.
- Current data does not cover factors relating to facilities involved in HGV accidents.

Traffic flow

- A heavy goods vehicle rate of 3-4% is normal in urban areas.
- HGV transport and local life are not very compatible. When considering journeys in built-up areas, routes for HGV transport in the safest possible conditions should be taken into account.
- In some cases, an HGV diversion may be necessary, as long as it fulfils the following conditions:
 - those pertaining to the legality of the decision given in Memorandum 77-150 of 12/10/1977 relating to HGV traffic and bypasses around built-up areas;
 - identification of an alternative route;
 - agreement from mayors and managers concerned by the diversion;
 - use of a mayor's or highways authority's order (with mayoral consultation) concerned by the traffic ban;
 - use of adequate police and directional road signs.
- Organisation of deliveries will have to be rationalised by using times of low traffic volume. Research on distribution platforms has yet to be carried out.

Geometric features

- Occasional HGV use should not lead to questioning the geometry of a street. This issue should, on the contrary, arise once their presence becomes permanent.
- Streets should not be made especially large for exceptional HGV use. Whenever this does happen, it is always to the detriment of pedestrians or speed. Amenities that can be crossed (cambering, low-vision kerb work, etc.) that reduce the usable road visibly and physically for motorists should be prioritised while at the same time allowing HGVs to pass at reduced speeds. A turning HGV must not leave the road and mount the pavements (checking by turning circles).
- On roundabouts, a “crown” that can be crossed will avoid requiring a very wide ring or increasing the exterior radius.



Example of a crown that can be crossed by HGVs inside a roundabout.

- On traffic-light controlled junctions, simply moving the stop line back avoids increasing the size of the kerb and, consequently, increasing the length of pedestrian crossings and the speed of vehicles using the roundabout.
- Road width: the maximum width of an HGV is 2.6m (refrigerated trucks - Article R 312-10 of the “Code de la route”).

A width of 6 metres from kerb to kerb is enough for two HGVs to pass each other without any trouble (at less than 30 km/h) on a straight section of road.

A width of 5.5 metres from kerb to kerb obliges two HGVs to pass each other at walking pace.

- When the road is cambered, care must be taken with any possible obstacles overhead or ones that could the HGV to drift (trees, streetlamps, etc.). Trees are quite common in towns and pruning should take into account the possible passage of an HGV to avoid any swerving manoeuvres.
- On wide giratories and roundabouts, traffic islands and entrance and exit points should protect cycle routes and therefore cyclists from the rear axles of trucks as they enter or leave the roundabout



Example of a cyclist protection island at a roundabout entrance.

- On some junctions, high kerbs (spur-posts) can be useful for protecting pedestrians waiting on the pavement.
- On bends, if it is dangerous for HGVs to broach oncoming lanes and if widening the road could encourage faster speeds for other users, it is possible to create an axial or lateral curb lane that can be used when required by HGVs. The visual effect is that the road doesn't appear wide.



Examples of axial curb lanes that can be crossed by HGVs.

- Deceleration devices on entrances to built-up areas such as chicanes should be geometrically suited to passing HGVs.
- Particular attention should be paid in advance of installation of speed bumps of any kind to routes frequently used by HGVs because of the risks of noise and vibrations (standard NF P 98—300). These standards apply to roads that have HGV traffic above 300 per day as an annual daily average (MJA) and are not recommended over traffic volume of 100 per day (MJA).

Parking

- HGV parking involves several factors:
 - stops and deliveries;
 - deliveries;
 - position.
- Deliveries at businesses and activities must be taken into account when road planning: reservation of necessary spaces, choice and size of spaces so as not to reduce visibility (pedestrian crossings, junctions, traffic lights or priority signage).
- Geometric design of parking areas must avoid the need for dangerous manoeuvres (especially reversing) on the street. Such manoeuvres are dangerous for pedestrians and cyclists out of the driver's field of vision.

Residents' driveways

when planning permission is given, it is best to avoid access configurations that may require HGVs to reverse or make manoeuvres on the road, especially into private driveways.

Special case of exceptional loads (CE).

These are frequently encountered when requalifying roads crossing built-up areas. Their presence should not mean that the road needs to be over-enlarged; it is however essential to ensure that proposed facilities are compatible with this type of traffic.

- The first question is that of the frequency and width of these special loads.
- Road planning can include use of both lanes of traffic by the special load in straight sections and on junctions (with police escort).
- Positioning of street furniture either on the roadside or in the road itself needs to be considered (can street furniture be moved if necessary?) and the two previous points should also be taken into account.
- Creation of a parking or waiting area up from an urban area can be considered for special loads.

Associated subjects

- Public transport

Bibliographic references

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The series of documents "Basic Road Safety" formed part of the MPSR project "Road Safety Management and Practices" by RST working groups managed by Certu for urban areas and by Sétra for interurban areas.

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These sheets can be downloaded from the following web sites:

- Certu (<http://www.certu.fr>)
- "DSCR road safety "job portal" (<http://securite-routiere.metier.i2>)
- Sétra (intranet: <http://catalogue.setra.i2> and Internet: <http://catalogue.setra.equipement.gouv.fr>).

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AUTHOR OF THE INFORMATION SHEET:

François TORTEL

CETE de l'Est

☎ 03 87 20 45 59

Francois.Tortel@equipement.gouv.fr

YOUR CONTACT AT Certu

Nicolas NUYTTENS

☎ 04 72 74 58 69

nicolas.nuyttens@equipement.gouv.fr

Secretarial office ☎ 04 72 74 59 33

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